DISKOVER In Action

Inside Story:

ASK Chemicals
Continuing Business Recovery Makes Planning and Scheduling Process Difficult
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Low-expenditure sales planning leads to better production supply

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An increasing demand coupled with a shortage on the raw materials market became a huge challenge in terms of production supply of raw materials for the supply chain of ASK Chemicals, one of the world’s largest suppliers of foundry chemicals. Capacity reductions were widespread during the financial crisis, which subsequently led to difficulties in supply when orders increased again. ASK was able to respond well to the market situation, since their demand planning process had just been optimized by implementing the ERP AddOn system DISKOVER SCO. As a result, today’s automated and continuous sales and demand planning processes lead to improved availability despite low expenditure.

ASK Chemicals GmbH is one of the most favored and innovative partners of the foundry industry. Product-efficient solutions, customized products and outstanding technical service globally on site are typical features of the company which produces foundry chemicals and artificial resins. The automotive industry as well as machine and plant construction companies benefit from ASK’s products.

Strong sales growth, missing process adjustment

Characteristics of the years prior to the financial crisis were fast increasing sales with a corresponding increase in the range of customers. Consequently the old structures of planning and control of procurement and production were no longer suitable. However, there was no free time to optimize the processes and to develop more appropriate methods, as is typical for a fast growing company.

Procedures at ASK Chemicals mostly consisted of ad hoc planning and control to fulfill short-term customer orders. As a result detailed control of production required a high level of expenditure and coordination. This was not caused by a lack of planning competence, but rather by the absence of an advanced planning tool used by appropriately trained planners. Initial analyses proved that the high expenditure and coordination demands were only symptoms, caused by deficiencies in super-ordinate planning. Current market activities did not flow continuously into the planning process. Missing forecasts and insufficient security to buffer sales fluctuations were the main cause of the problems. A complete redesign of the planning process coupled with appropriate software support became a key objective.
Achieving maximum benefit with minimum expenditure

The objective of the new process was to keep expenditure as low as possible and to still achieve good planning results. Development on a lean basis prohibited excessive overheads. To define future demand via statistical forecasts planning all availability of products automatically via software was the solution of choice. In this way sales information only had to supplement statistical forecasts if deviations were expected, meaning that the task of the sales planner reduced down to planning exceptions – which saved much time and expense.

Since there is no rule without an exception, it is inevitable that exceptional orders which escape the forecast will have to be taken into account. So each member of the sales staff has to have the opportunity to for example enter sales deals, add new customers or remove existing customers. Other events in need of manual planning include new products and product variants, which cannot be forecast due to a lack of data, as well as discontinued products, which do not require further forecasting.

Software requirements

The execution of such analyses requires software which makes it easy for sales to identify exceptions. Hence the software must be able to designate planning not only based on the bill of components, but also on the bill of customer orders. In terms of mathematics and statistics, the software must also be able to automatically identify the best suitable forecasting and safety stock procedures to achieve supply readiness with as low a level of stocks as possible. To ensure the ideal result, it is essential to apply the forecasting procedure best matching the circumstances. Application of just any forecasting method would only lead to inferior results. This seemingly small but decisive difference is often ignored in practice because of a lack of understanding of the different processes; also most ERP systems simply do not offer an appropriate variety of methods.

How high is the level of standardization?

Practice proved that most articles can be forecast automatically. This allows material planners to schedule many articles, in particular raw materials, consumption-controlled via reorder level processes. Based on sales and forecast figures, DISKOVER SCO continuously identifies new reorder levels and passes them on to the SAP system using standard BAPIs. Planned independent requirements are the basis for the planning of the other items. For these, DISKOVER feeds the preliminary planning data including the correct strategy group into SAP. The few exceptions left are conveniently planned by sales from any point in the world.

This solution resulting from optimization algorithms applied during simulation guarantees that not only the most economic but also best quality of planning. In the process DISKOVER simulates the past planning procedures and alters the determination methods of safety stocks, forecasts and material planning plus their parameters to find the algorithm delivering the best results.

Spoilt for Choice

There are few tools in the market which support ERP systems in the optimisation of material planning and scheduling. Of these few, SCT’s supply chain optimiser DISKOVER SCO stands out both in terms of programming technology and methodical competence. The software is based on the latest Java technology and can therefore be adapted quickly and easily to new requirements. If required, the user may reduce the available features to what
he is used to of the hosting SAP system with one click only. This illustrates DISKOVER’s high compatibility to SAP as well as its methodical competence.

A simple click displays additional procedures which lead to even better results in certain planning cases. If these special features are not used, DISKOVER analyses the data it collects via standard SAP interfaces according to the integrated rule sets and reloads the updates into the SAP system. During this procedure, DISKOVER SCO defines the articles’ setup and the scale of influence sales figures should have in planning and material planning.

Sales staff can identify exceptions as described above on the item-customer-level via DISKOVER’s ‘Sales Forecast’ module and integrate these into planning. Irrespective of the location, data can be collected worldwide and processed centrally. Additional requirements or sales corrections are shown in the consolidated planning overview and passed on to calculation of requirements. Feeding the final planning figures and adjusted planning parameters (e.g. reorder and safety stock levels) into the SAP system completes the continuous planning chain.

Illustration 1: Principle of continuously mapped planning process

Benefits of DISKOVER SCO:

- Clear structural division between the systems
  - Continuous solution
  - Clear division into planning domain (Diskover SCO) and execution domain (implementation of planning and material planning and MRP via SAP)
- Fewer system discontinuities
- Minimization of expenditure in daily business
- Use of optimization algorithms, leading to
  - more flexibility,
  - less effort than with SAP/SOP plus
  - highly improved quality of planning
- Continuous application of rulesets across all material stages delivering the optimisation of material planning parameters, for semi-finished products as well as raw material